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WHAT I CLAIM IS:

Claim 56 (Currently amended): A method for joining two parts of hollow organs or segments of same hollow organ at any anatomic location, over an annular area defined on a chosen plane in each of the two parts, whereby each part has an opening through the respective plane essentially inside the respective annular area, performed on a patient; said method being realizable in conjunction with any of a large variety of surgical procedures, whether a resection of a hollow organ is to be carried out or not, and whether said resection is carried out before said joining or not; the method sequentially comprising at least the steps of-

- a) providing a flexible annular stapler comprising a first and a second interacting round jaws wherein one of said jaws includes at least a stapling member and the other jaw includes at least an anvil member;
- b) inserting in accordance with surgery facilities, in a predetermined order, said first and second jaws through the mouth of said patient into a first one of the two parts and advancing said jaws to where one jaw is inside the first part and the other jaw is inside the second one of the two parts, each jaw being substantially near the respective chosen plane for said joining;
- c) for each of the two parts, either shrinking the opening so as to form an at least partially closed butt that encloses the respective one of said jaws, or pressing the tissue surrounding the opening to form a pair of adjoining lips so as to enclose the respective one of said jaws and stapling said lips together by means of a linear stapler; and
- d) operating said annular stapler so as to pull the two said butts together and essentially combine the two annular areas into a combined annular area, to staple the two parts of hollow organs or segments to each other over said combined annular area and to cut away portions of said butts that are central to said combined annular area so as to realize either an end to end, end to side, side to end or side to side joint.

Claim 57 (as originally filled)

Claim 58 (Currently amended): A method for joining two parts of hollow organs or segments of same hollow organ at any anatomic location, over an annular area defined on a chosen plane in each of the two parts, whereby each part has an opening through the respective plane essentially inside the respective annular area, performed on a patient; said method being realizable in conjunction with any of a large variety of surgical procedures, whether a resection of a hollow organ is to be carried out or not, and whether said resection is carried out before said joining or not; the method sequentially comprising at least the steps of-

- a) providing a flexible annular stapler comprising a first and a second interacting round jaws wherein one of said jaws includes at least a stapling member and the other jaw includes at least an anvil member; said stapler further comprising an inflatable balloon at its top.
- b) inserting said balloon, and said first and second jaws in a predetermined order in accordance with the surgery facilities, into a first one of the two parts while using said inflatable balloon for dilating the path in said parts; advancing said jaws to where one jaw is inside the first part and the other jaw is inside the second one of the two parts, each jaw being substantially near the respective chosen plane for said joining;
- c) for each of the two parts, either shrinking the opening so as to form an at least partially closed butt that encloses the respective one of said jaws, or pressing the tissue surrounding the opening to form a pair of adjoining lips so as to enclose the respective one of said jaws and stapling said lips together by means of a linear stapler; and

- d) operating said annular stapler so as to pull the two said butts together and essentially combine the two annular areas into a combined annular area, to staple the two parts of hollow organs or segments to each other over said combined annular area and to cut away portions of said butts that are central to said combined annular area so as to realize either an end to end, end to side, side to end or side to side joint.

Claims 59-60 (as originally filed)

Claim 61 (Currently amended): A method for joining two parts of hollow organs or segments of same hollow organ, at any anatomical location, over an annular area defined on a plane in each of said two organs or segments, under conditions of closed surgery using laparoscopic and/or thoracoscopic techniques, performed on a patient; the method being realizable in conjunction with any of a large variety of surgical procedures, whether a resection of a hollow organ is to be carried out or not, and whether said resection is carried out before said joining or not; the method comprising the steps of-

- (a) providing a flexible annular stapler having a flexible body, a flexible cable and two interacting jaws wherein one of said jaws includes at least a stapling member and the other of said jaws includes at least an anvil member; said flexible cable slidable through said body and through any chosen one of said jaws, having an end protrudable from said chosen jaw defined hereafter as a first jaw; the other one of said jaws defined hereafter as a second jaw, being attachable to said end of said cable, said second jaw being initially detached;
- (b) inserting said first jaw into a first one of the two parts of hollow organs; advancing said first jaw to where it is inside the first part near the respective plane and causing said end of said cable to protrude from said first part;
- (c) introducing said second jaw into a closed thoracic or abdominal cavity through the patient's thoracic or abdominal wall and attaching it in the inside of said closed cavity to said end of said cable;
- (d) having said second jaw inside the second one of the two parts of hollow organs and having each of the two parts form an at least partially closed butt at or near the respective plane, said butt enclosing the respective one of said jaws; and
- (e) operating said annular stapler so as to pull the two said butts together and essentially combine the two annular areas into a combined annular area, to staple the two parts of hollow organs or segments to each other over said combined annular area and to cut away portions of said butts that are central to said combined annular area so as to realize either an end to end, end to side, side to end or side to side joint.


Claims 62-72 (as originally filed)

Claim 73 (New): The method of claim 56, wherein any of steps (b) through (d) are carried out under conditions of closed surgery.

Claim 74 (New): The method of claim 73, wherein said insertion is effected through any natural opening of the patient's body and wherein the hollow organ resected portion consecutive to said resection of a hollow organ, is removed either through a minimal invasive body wall incision of said patient, or through one of said two parts of hollow organs.

Claim 75 (New): The method of claim 56, wherein said insertion through the mouth is followed by insertion either through the oesophageal opening or through the tracheo-bronchial opening.

Claim 76 (New): The method of claim 58, wherein any of steps (b) through (d) are carried out either under conditions of open traditional surgery or under conditions of closed surgery, using laparoscopic and/or thoracoscopic techniques.


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